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CONTENTS

Uniformity and Induction: D. W. GOTSHALK 141

Fichte's Conception of a League of Nations: A. C. ARMSTRONG .. 153

Book Reviews:

Brunschvicg's De la connaissance de soi: GEORGE BOAS 158

Husserl's Ideas: General Introduction to Pure Phenomenology (Gibson translation): ANDREW D. OSBORN 163

Journals and New Books 167

Notes and News 168

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THE JOURNAL OF PHILOSOPHY

UNIFORMITY AND INDUCTION

THE principle of uniformity, although sometimes dismissed as irrelevant to science,[1] is more usually asserted to be the basis not only of scientific but of all induction.[2] The principle is assumed to be simple and straightforward, which I think it is. But few have adequately noticed the unsatisfactoriness of accepted statements of the principle,[3] and fewer have made plain the very great difficulty in attaining a satisfactory statement.[4] The task of attaining such a statement is the first important one to which we must address ourselves, since, without it, any attempt to discuss the relation between uniformity and induction must be fairly futile. Then, as our second important task, this relation itself, at least in its most vexing aspect, will be discussed.

I

We may be helped to a suitable understanding of uniformity by glancing first at the more orthodox theories, then at the more recent theories put forth to displace or supplement them. The orthodox theories are two in number, and might be called the causal and the mathematical theories of uniformity.

The causal theory was clearly formulated by J. S. Mill. Uniformity, according to Mill, means that "what happens once, will, under a sufficient degree of similarity of circumstances, happen again, and not only again, but as often as the same circumstances recur."[5] Contemporary logicians repeat the essentials of Mill's view. Joseph, for instance, interprets uniformity to mean that "the same thing unaltered on different occasions, or two things of the same nature, should under the same circumstances produce the same effect."[6] Bergson has accepted the general view here, al-

[1] N. Campbell, *What Is Science?*, pp. 61–62.

[2] Joseph, *Introduction to Logic*, p. 443; most current logic textbooks.

[3] Bosanquet, *Logic*, Vol. 2, p. 174ff., is one.

[4] Broad, *Relation Between Induction and Probability* (Part II), *Mind*, N. S., 29, 1920, p. 11ff.

[5] *Logic*, eighth edition, p. 223.

[6] *Op. cit.*, p. 420.

though he has made it a basis for showing the essential unreality of intellectual discoveries. Bergson says: "Induction rests on the belief that there are causes and effects, and that the same effects follow the same causes." "Induction therefore implies *first* that . . . time does not count." [7]

This causal theory of uniformity, I think it fairly obvious, has serious defects. In the first place, if true so far as it goes, the theory clearly does not go far enough. There are many instances of uniformity which simply are not instances of the same cause, under similar circumstances, producing the same effect. Thus, two specimens of a chemical, say sodium sulfate, may be equal in weight, and uniform in other qualities. Here would be uniformity, yet not a cause-effect, but a substance-quality, uniformity. Again, between two objects, *A* and *B*, and two other objects, *Y* and *Z*, a relation of the same general form may hold, say contiguity. This also would be an instance of uniformity, yet not a causal, but a spatial uniformity. Instances easily might be multiplied, but the point is plain. Cause-effect uniformity is only one of a number, and there are any number of other uniformities which, as they stand, are relations between substances, between qualities, between relations, independent of the category of cause-effect.

In the second place, even within its limited possible field of application (cause-effect), the causal theory is simply not a significant principle of uniformity. Uniformity, if anything significant, is a relation between a genuine diversity. But the causal theory, as set forth, actually applies to no genuine diversity. We raise no question of the theory's abstract truth; the theory, as stated, is abstractly true enough; the same cause, under similar conditions, no doubt should produce the same effect, again and again. We question whether the same cause, just it, and the similar conditions, ever as a fact occur again. The Battle of Waterloo, under the same antecedent and similar coexistential conditions, should no doubt happen again and again; but the antecedent and co-existential conditions of this nineteenth-century battle, just those, seem, as an actual fact, never to happen again. It is no reply to this to say that the causal theory might be emended to avoid this. No doubt it might, but how? Bosanquet has tried his hand at it,[8] and we shall have to consider his view in a moment. In the meantime, the point is that the causal theory, as it stands, certainly does need emendation, since, as it stands, it merely states (in sum) that *A* is always *A*, and fails, so far as experience goes, to state a relationship between a real diversity. In short, it amounts to a true but trifling

[7] *Creative Evolution.* English translation, pp. 214, 216.

[8] *Logic, loc. cit.;* but also and particularly, *Individuality and Value,* chs. 3, 4.

proposition, and is not a significant statement of uniformity at all.

The second orthodox theory of uniformity is the mathematical. This theory is suggested, as the causal also is supposed to be, by exact science. "The business of science," Russell says, "is to find uniformities, such as the laws of motion, and the law of gravitation, to which, so far as our experience extends, there are no exceptions."[9] The view of uniformity commonly associated with such a view of science, is that all the individual processes in nature, without exception, exhibit a routine precisely and completely expressible by mathematical laws—such as the gravitation formula.

This view of uniformity, which is not Russell's but one which scientists prior to recent quantum mechanics seem to have believed, and one alleged to be a main tenet in any thoroughgoing deterministic theory of nature,[10] has also two defects. First, like the causal theory, it is too narrow. There are many instances of uniformity which are not at all precisely or completely expressible by mathematical laws: e.g., the uniformity in odor, taste, etc. of relatively pure specimens of a chemical, say ethylene; the qualitative uniformity between certain strata of rock, and so on.[11]

In the second place, even within the field in which the theory could possibly apply (quantitative aspects of events), there is no proof that the uniformity it asserts is there. The evidence here is two-fold. First, many of the mathematical laws of science are statistical. This means that they are not known to describe precisely the routine of any particular process in nature as such, or any exact uniformity really holding between any two or more such processes. Secondly, the non-statistical mathematical laws of science are also never really known to be obeyed precisely by any natural process. The evidence here is familiar, and has been summed up by various writers, Jevons,[12] Meyerson,[13] and Hobson,[14] among others. Hobson says: "In those advanced scientific theories which are of the quantitative kind, . . . there is always an element of approximation in the application of the theory, because all actual measurement is approximate only. . . . Thus, even in the case of quantitative theory, there is an essential element of approximateness in the power of a scientific theory to represent actual perceptions." Again: "A scientific law states what would happen under ideal conditions, more or less imperfectly realized in actual cases."[15] That is, in actual

[9] *Problems of Philosophy*, p. 100.

[10] Taylor, *Metaphysics*, p. 233ff.

[11] Meyerson, *De l'explication dans les sciences*, chapter entitled "The Irrational," notes various uniformities which fall outside mathematical expression.

[12] *Principles of Science*, chs. 13, 14.

[13] *Identity and Reality*, English translation, p. 31ff.

[14] *Domain of Natural Science*, pp. 40ff.

[15] *Op. cit.*, pp. 40, 44.

cases, so far as our most exact investigation goes, mathematical uniformity is not really found to be exhibited by the particular processes investigated. The mathematical theory of uniformity, thus, is not only too narrow because failing to have place for many uniformities, but, if taken in all strictness, it is not really an account of any actually known uniformity, since the uniformity it might have been an account of is not actually known to be there.

Attempts have been made recently to avoid some of the difficulties in these two orthodox theories by constructing new interpretations of uniformity. The most notable of these recent attempts undoubtedly are those of Bosanquet,[16] and Whitehead.[17]

Bosanquet first attacks the causal theory, denying that uniformity is a principle of repetition, the same producing the same, the future reproducing the past.[18] In his view, uniformity is simply the principle of rational system, and should be called the principle of relevancy.[19] So understood, uniformity "means that every variation is a member in an intelligible system," [19] or, more exactly, "the coherence of differences in a whole." [20] This view I think contains a truth, but it has difficulties. By a whole or system, Bosanquet of course means, not a class, but an individual whole, or concrete system; e.g., this table, our planet, the universe. And there is no denying that any two or more realities as equally relevant to and differences in such wholes or systems are, so far forth, uniform. It is easy to see, however, that two such realities, say two specimens of amorphous carbon on our planet, may have uniformities over and above that of relevance to any particular concrete system. For instance, they may be uniform in kind of color, in kind of capacity to combine with other chemicals. In short, they may be uniform as members of a class, the class of amorphous carbon specimens, as well as uniform as members of some concrete individual whole or system. The fact is, relevancy to and coherence in some particular concrete whole, although one uniformity all finite realities have at least as members of the universe, is only one and often the least conspicuous one. That is, relevancy as understood by Bosanquet, is not the principle of uniformity itself, but merely a fundamental illustration of it.

Whitehead, against certain interpretations of relativity, holds that space-time is not "warped" but uniform,[21] thus answering Keynes' question as to whether his (Keynes') theory of uniformity

[16] See footnote 8.
[17] "Uniformity and Contingency," *Aris. Soc. Proc.*, 1922–1923, p. 1ff.
[18] *Individuality and Value*, p. 139.
[19] *Op. cit.*, p. 119.
[20] *Ibid.*, p. 93.
[21] *Principle of Relativity*, preface, p. v.

is adversely affected by relativity physics.[22] Yet Whitehead recognizes that mere spatio-temporal irrelevance or uniformity (Keynes' theory) is not sufficient. "The space-time continuum is not the sole basis of uniformity in nature. If it were so, induction would be impossible."[23] What further is needed, it seems, is the existence of perceptual objects as controls. A perceptual object, a stone, a star, being a true Aristotelian adjective, in Whitehead's view, marks "a breakdown of the reign of relativity; it is just an adjective of the event which it qualifies. . . . A control is necessarily the control of the process, or transition, in finite events. It thus means, in its essential character, a control of the future from the basis of the present."[24] The doctrine here seems to be the assertion that a perceptual object, say this stone, retains a uniform character amid the events which is its career; its present character hence can be taken to lay down its future character, since, so long as the thing is that thing, it *will be* in some sense the thing it *is*. This is perhaps true. The existence of adjectives in nature into which time does not bite at all ("eternal," "Aristotelian") may be doubted; the equating of stars and stones with such adjectives or indeed with adjectives of any sort may be doubted still more. Yet it seems true to say that a star or a stone, so long in the future as it is that star or that stone, will be uniform in some sense with what each is; that is, the future of each seems to be in some sense settled by its present.

Still this, together with the uniformity of space-time, seems a quite inadequate statement of a general uniformity principle. To go no further: events themselves, no less than space-time and perduring objects, as the causal and mathematical theories at least tried to point out, do appear to exhibit some uniformity. The Whiteheadean account appears to limit any uniformity between events to uniformity of space-time and of adjective (more precisely, of perduring object) and to interpret events as otherwise singular and nonuniform. As against this, it seems obvious that events themselves, the transitions or on-goings not their space-time or their adjective, are uniform at least in being transitions, and, if not in possessing causal efficacy or a measurable routine, then also in being the singular elements in nature that pass.

II

We must try now to formulate, as best we can, a statement of the uniformity principle which is adequate. The above criticisms

[22] The question is asked on p. 248, note 2, *Treatise on Probability*. Keynes' theory of uniformity, stated on page 226 of the same work, is "irrelevance of mere position in time and space to generalisations which have no reference to particular positions in time and space."

[23] *Uniformity and Contingency*, p. 12.

[24] *Ibid.*, p. 17.

of inadequate theories, it will be seen, immensely lighten this difficult task, not only by removing inadequate views, but by pointing out incidentally the major varieties of uniformity which it is incumbent upon any adequate theory of uniformity to do justice to.

We may begin by observing that uniformity as significant is a relation between a genuine diversity. No doubt one may say that A as A is uniform with A; but this is trifling. If uniformity is to be significant, and where it is significant, a genuine diversity must be involved. Yet uniformity would not exist were there mere unlimited diversity or variety.[25] Something more is needed. This something more, for lack of a better term, I shall call identity, and shall accordingly formulate the uniformity principle as the principle of identity between a diversity.

This statement in itself tells little or nothing, and requires explanation.

The identity it refers to may be of three sorts. The first is literal, contentual identity. This is best illustrated by the identity existing between two temporally close states of an ordinary thing, a stone, an organism, a star. The content of any state of such a thing, say the substance-qualities-relations of this stone now, is empirically known to be to some extent literally identical with, though also to some extent different from, the content of any temporally close state of that thing, say the substance-qualities-relations of the stone a moment ago. In possessing such identity, these diverse states are uniform, and the uniformity they exhibit, literal contentual identity amid diversity, is the first kind of uniformity we may take note of. This uniformity seems to be the sort which Whitehead wished chiefly to insist upon as exhibited throughout nature. We shall call it for a label, uniformity kind number one.

Identity, however, may not be literal. Two other kinds may be distinguished. The first involves a diversity consisting of the differences within an individual or concrete whole. These differences are contents specifically different, but they equally possess relevancy to and coherence in their particular concrete system or whole. And in this consists their identity, or uniformity. This kind of uniformity is illustrated by the parts, elements, members of any articulated individual system, from the system which is the table I write on to the system which is the universe as a whole. These parts, elements, members, each specifically different, are uniform in exhibiting relevancy to, and submission under the law of, the particular whole or system to which they belong. This identity amid the diverse contents of concrete wholes, appears to be the type of uniformity advocated, or at least suggested, by Bosanquet. For convenience, we will call it, uniformity kind number two.

[25] *Cf.* Keynes, *op. cit.*

Finally, there is a third kind of identity. This involves a diversity which consists, not of parts, elements, members in a particular concrete whole, but of different particular concrete wholes. These wholes (e.g., the many diverse specimens of amorphous carbon), merely taken together, do not make up one systematic individual, but they do make up a class of individuals. Their identity consists of possession of some contents which, although not literally the same, are *in kind* identical.

This uniformity, which we will call kind number three, is of all the most familiar. It is the kind of uniformity which the causal and the mathematical theories were devised to do some justice to, and has abundant illustrations. For instance, two causes, two effects, two causal sequences, which, though their contents are not literally the same, have contents of the same kind, illustrate it; e.g., two causes of the kind called "shooting," two effects of the kind called "death," and so on. Again, two sequences of events known to obey approximately, or in the long run, a given mathematical law; two specimens of a chemical, say sodium sulfate, equal in weight and uniform in other qualities; two objects, A and B, related to each other as two other objects, Y and Z, say by contiguity; two distant regions of space-time; and so on, are other illustrations. In all of these cases, there is a diversity of concrete individuals (whether events, sequences, substances, relations, space-times) which merely put together do not make one individual, but do make a class or a part of a class of particular individuals. And the uniformity amid this diversity consists of the possession by each of these individuals of a content which, though not literally and in particular the same, is the same in kind or class.

This outlines the view of uniformity here advocated. Perhaps it can be clarified a bit by briefly pointing out its relations to the theories of uniformity previously examined.

A covering formula, identity between genuine diversity, supplants the separate formulae of the other theories. The chief element in Whitehead's views, modified so as to avoid the A is A form which lurks in his view of "eternal" adjectives, then becomes the first illustration of the theory, and the uniformity insisted on by Bosanquet, suitably re-stated, becomes the second. The mathematical theory is emended so that the uniformity pointed to by it is said not to be exact but approximate, or statistical, uniformity. The causal theory is emended so that it is not the claim that the same cause produces the same effect, but that two different causes belonging to the same kind of cause produce two different effects belonging to the same kind of effect. The mathematical and causal uniformities, thus restated, becomes two of a large number of uni-

formities which constitute illustrations of the third kind of identity, under our theory.

I think that there can be little doubt that the uniformities described by our theory are real. Our theory is indeed merely an attempt to state precisely, in terms of identity, the uniformities recognized by the other four theories and the uniformities we pointed out to be exceptions to these theories. That is, our theory is no more than an attempt to make a precise rendition of at least all the generally recognized facts. Nor do I think difficulty is offered by the question as to whether our account of uniformity has place for all the uniformities that are real. So far as I know, all real significant uniformities have place in our theory as above set down; but if there are uniformities which do not, there seems no reason to believe that they can not be described in terms of an identity theory.

There remains then the question of the relation between uniformity and induction. This, it will be recalled, is our second main topic. Before it can be taken up, however, a few remarks must be made about induction.

III

Of all the kinds of induction, it will be sufficient for our purpose to distinguish two, for these two kinds, it will be seen, involve all the main problems in the relation between uniformity and induction.

The first kind of induction is concerned with a particular whole, say a particular organism, which is diseased. The induction proceeds from a survey of scattered data in this whole to the adoption of one of several possible ideas regarding it. For instance, in the case supposed, the induction proceeds from a survey of the diverse symptoms in the organism to the conclusion that of all the possibilities this particular organism has the disease *Z*. The notable characteristics of this sort of induction, for our purposes, are two: that it is concerned with one particular individual, and that its result refers to and is affirmed of merely this one individual.

The second sort of induction begins as does the first; initially, it is an analysis of a particular individual, or perhaps several, say three specimens of ethylene. In its conclusion, however, it differs. It asserts here an idea which claims to be true not merely of the individual or several analyzed, but of all the individuals belonging to the same class as the individuals analyzed. Its conclusion says: ethylene is *xy*, meaning that all specimens of ethylene, under the stated conditions, are *xy*. That is, the outcome of this sort of induction is an intentional generalization, unlike the outcome of the first sort, which is intentionally an assertion merely about one particular individual.

The first sort of induction is best illustrated by inductive reasoning in everyday experience, in the practice of the arts, in historical research, and in quasi-historical sciences, such as geology. The second sort is best illustrated by the inductive reasoning in those sciences, which, like physics and chemistry, seek universal laws, or formulae equally applicable to any possible specimen of a type: any gravitational transaction, any magnetic field, any interaction between chemical *A* and chemical *B*.

The first sort of induction, it seems to be tacitly agreed, raises no special theoretical problems relative to uniformity. Yet a word or two on it must be said. This sort of induction does presuppose uniformity: namely, that the data apprehended and used in the induction are relevant to the particular whole investigated—uniformity kind number two. Moreover, this sort of induction is conditioned by the reality of this type of uniformity. That is, an idea projected by this sort of induction is valid and said to be valid only if it is adequate to all the data and just those data relevant to the particular system investigated. Thus, relevancy on the part of the diverse data to one particular whole, is assumed in, and conditions, the determination of the validity of the outcome of this sort of induction. This fact has usually been ignored, but perhaps rightly. After all, the continued analytic inspection of the situation itself, not the mere presence of uniformity in it, actually determines what idea is or is not valid, and uniformity, far from solving the problem involved in this sort of induction, serves mainly to set it by posing the difficulty of determining in the investigated situation what is or is not relevant for any proper solution.

The second sort of induction, however, has a difficulty which the uniformity principle itself has often been supposed to be able to solve. The difficulty is familiar. In this sort of induction, only a few of a large number of known or possible cases are selected for analysis, and the result obtained is known to be strictly true only of these few selected particulars. Yet the outcome of this induction is expressed in a generalization claiming to be true not only of the analyzed but of all cases. How is this justified? The answer has been: there is uniformity between the analyzed and the unanalyzed cases, and this uniformity justifies the extension to all cases of what has been found to be true in the few. Once true, always true, thanks to uniformity. The uniformity referred to here, of course, is kind number three.

Now the uniformity here supposed, I think, is real enough. Between the analyzed and the other known or possible cases of *P*, there is and must be some identity in kind of content. For after all *P* is nothing but a symbol for the class of all cases of a kind, and, if

any particular is to be a case of *P*, it must therefore exhibit some identity of kind with any other case of *P*. Still the mere existence of *some* identity in kind between all cases of *P* surely is not enough to guarantee that *any* specific identity found between a few analyzed cases necessarily holds for all cases; i.e. that the generalization, *P* is *xy*, if true of *A, B, C*, is true universally. For it may be that the specific identity discovered between the few cases, whilst real enough for the few, is real only for the few and accidental for all. And certainly there is nothing in the mere fact of *some* uniformity in kind existing between all, which in itself guarantees that *any* specific uniformity found between the few is not accidental, but necessarily true.

The situation here is similar to the situation in regard to the first sort of induction. There, uniformity underlies and conditions assertion, as here it underlies and conditions generalization. But in the first sort of induction uniformity does not guarantee the truth of any idea asserted; this is guaranteed by continued inspection. Likewise here, uniformity can not guarantee the truth of any generalization from few to all. Any such generalization may happen to be grounded on contents which, identical for the few, are accidental for all, and the mere existence of *some* contents identical in kind for all, uniformity, can not in itself preclude that the generalization may not be.

Still two points of the utmost importance must be added and discussed to set this in its proper light.

(1) There is a type of second order induction that issues in an outcome which to all appearance has certainty, namely, inductions which discover defining contents. Suppose, for instance, the few cases analyzed are those of a chemical substance, *P*. These few cases are found upon analysis to have *x* and *y*, and when *x* and *y* are put together you have a case of *P*, and when *x* or *y* or *xy* are withdrawn, a case is no longer a case of *P*. Such analysis appears to justify the belief that *xy* are defining contents, namely, contents which earmark any case as a case of *P*, as hydrogen and oxygen do water. The generalization, all *P* is *xy*, is, then, not felt to be merely probable, but certain, although like all generalizations issuing from second order induction, it is a generalization from few to all, and based on an analysis of only some of the total cases of *P*. Let us suppose all this to be true. Is the certainty of the generalization here, so far as it is here, a result of uniformity? I think it is easy to see that it is not. That all *P* is *xy*, is certain, if at all, not because all cases of *P* have a uniformity, which is true enough, but because the analysis of the few cases shows that just *xy* is this uniformity, that, if *xy* were present the case would be a case of *P*, and if *xy* or *x*

or y were absent, a case would not be. The analysis lets us see that a case can not fall under P unless it exhibits xy, hence that all P is xy; whilst the mere uniformity between all cases of P, though it be real, in itself merely shows that *some* identity in kind of content, but not necessarily xy, is true universally.

(2) There is a variety of uniformity which, if fundamental, would contravene our entire position here. If uniformity were complete repetition, if any case of P as uniform was simply and completely any other case all over again; then, an outcome of analysis, true for one or several cases, even if it did not define the class, would be guaranteed by uniformity itself to be true universally. Once true, always true, if uniformity were complete repetition. We have seen reason to reject this version of uniformity as fundamental. Such uniformity holds between A and A, but there are endless uniformities empirically discoverable which are not relations between A and A, but between a genuine variety. We need not recite again the list already given in sections one and two above, and sufficient to establish our criticism here. But we may point out that with the acceptance of uniformity as between a genuine variety, the position possible under complete repetition, entirely falls away. In itself complete repetition would indeed guarantee the *general* truth of the result of any second-order induction. That is, if xy were true for a case A, and if all cases of P as uniform were merely A all over again, then, thanks to uniformity, P could be said always to be xy. Universal truth would be assured beforehand by uniformity. Under genuine variety, however, this can not be. For then all that is true in one case simply can not be true in every case, and anything true in several cases may not be true in all. The reason is that genuine variety implies in each case of P some contents that are not universal but peculiar. Otherwise, A and B and C would not be genuinely diverse. And this being so, under genuine variety, what is found in one case or in several may be a content that is not universal but peculiar to the one or several, and any discovery based on one case or several uniform with all therefore can not, simply because the one or several cases have *some* uniformity with all, be said to be true for all, or universally.

IV

Up to this point, we have discussed the relation between induction and uniformity kinds numbers two and three. Kind number one, I think, raises no special points. This uniformity, it will be recalled, asserts that a thing at t has some literal identity of content amid diversity with that thing at t', e.g., a temporally close state of the thing. The problem in regard to induction here is in principle, if not in details, the same as the problem involved in the relation

between uniformity kind number three and induction of the second sort.

The uniformity principle here does not itself lay down specifically the identical content between the two temporally close states of the thing. It merely lays down that so long as the thing is that thing any two temporally close states of it will have *some* literal contentual identity. What this identity is, it is the business of inductive investigation, where mere observation fails, to determine, if it can. Now, the inductive analysis here may detect the essentials of the thing as that thing (the defining contents), in which case the induction is enabled to assert the character if not the characteristic behavior of the thing at any nearby time of its existence with certainty. This certainty, however, if real, would be clearly a function of the analysis performed, not of the mere fact that between the thing when analyzed and the thing at a nearby time of its existence some literal contentual identity existed. Moreover, if this analysis failed, if it were impossible to determine the essential contents of the thing as that thing, then, though uniformity between the two states of the thing would still remain in full force, decisive certainty could not be attached to the inductive result, but only probability.

The situation here, as we have said, clearly is in principle the relation between induction and uniformity kind number three all over again. An assertion based on what is present (here, the present state of a thing; there, a few cases of P) is carried beyond the present to the absent (here, another state of the thing; there, all other cases of P). And between the present and the absent some uniformity is known to be real. This uniformity does not guarantee truth or certainty to the assertion carried beyond the present. For though this uniformity is real, it exists amid genuine diversity, and genuine diversity by implying something peculiar to the present and unshared by the absent implies that any assertion based on the present may be the assertion of a content peculiar to the present. And the mere existence of a content that is not peculiar but is in some sense identical in the absent and the present (i.e., uniformity), in no way predetermines by itself that this will not be.

Such, then, is the relation between uniformity and induction, at least in its most vexing aspect. Uniformity itself, whilst real enough and conditioning induction, does not guarantee certainty to it. Certainty is got and guaranteed by investigation, hard work; uniformity itself merely makes clear that some certainty is there to be attained, and that, until investigation has been carried far enough, any idea proposed has only probability.

D. W. GOTSHALK.

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FICHTE'S CONCEPTION OF A LEAGUE OF NATIONS

IN connection with Fichte's views on peace and war interest has centered about his relation to the national uprising against Napoleon, as this culminated in his celebrated *Reden an die deutsche Nation,* 1807–1808, and the lecture *Ueber den Begriff des wahrhaften Krieges* from the *Staatslehre* of 1813. This tendency has been reinforced by the continued influence of Fichte's political thought on the national consciousness of the German people—he was foremost, for instance, in the creation of the belief in the supremacy of German culture—and by the events of recent history. In 1913 his patriotic example was invoked once more as new sacrifices were demanded for the completion of the nation's armament in view of the expected European conflict. During the World War the *Wahrhafter Krieg* was one of the national classics republished in pocket editions for the use of the soldiers in the field. Amid the distress of the years since the peace, inspiration—not always happy—has been derived from his teachings for the work of reconstruction. In this way it has come about that other phases of the Fichtean doctrine concerning war and peace have been neglected or overlooked. So, in particular, his discussions of the question of a *Völkerbund;* which, moreover, form but a small part of his political philosophy as a whole. Here he takes his departure from the work of Kant. The essay *Zum ewigen Frieden* was published by Kant in 1795. In the following year Fichte published a review of it, in which, according to his ardent habit, he praised the Kantian views in glowing terms, while he interpreted certain points in the light of his own conclusions.[1] The *Grundlage des Naturrechts,* 1796–1797, in its Second Appendix brought a more formal consideration of such a *Bund* in relation to the elements of international and cosmopolitan law. The theory was repeated with certain variations in the last year but one of the philosopher's life at the close of the lectures on *Rechtslehre,* 1812.[2] Finally, the lectures of 1813—which were called at their posthumous publication *Die Staatslehre, oder über das Verhältniss des Urstaats zum Vernunftreiche*—after developing in an almost mystical way positions advanced by Fichte in earlier writings, foretold the forma-

[1] Fichte's *Sämmtliche Werke,* VIII, pp. 427–436.

[2] The *Rechtslehre* of 1812 was published by Fichte's son in 1834. It was then entitled *Das System der Rechtslehre* and the editor noted on the title-page that he had incorporated in the text passages from the earlier *Grundlage des Naturrechts* as referred to by the author. The editing of the lecture notes for the press seems, however, to have gone considerably beyond this. *Cf. Johann Gottlob Fichte: Rechtslehre vorgetragen von Ostern bis Michaelis, 1812. Nach der Handschrift herausgegeben von* Hans Schulz, 1920.

tion of *einen einzigen innig verbündeten Christlichen Staat* to embrace all mankind throughout the earth.[3]

Fichte held that the relations of states are grounded in the relations of their nationals. For the state in itself is an abstract concept and the citizens alone are actual persons.[4] Two citizens of neighboring states come into touch through their affairs. And each seeks a guaranty for the security of his property and his person like that which he enjoys within the boundaries of his home community. But how is such a guaranty to be provided? Neither party can of right demand that the other submit to the jurisdiction of his own government; and there is no common authority to act as judge between them. In this situation the two states must undertake a mutual judgeship, as it were, with a pledge from each to punish and redress injustice on the part of one of its citizens toward a citizen of the other as though it had been done to a fellow-countryman. This agreement implies the mutual recognition of the legal organization and independence of states, in so far as such a constitution is necessary to fit them for international relations under law. And, in the second place, it requires completion by a more particular enactment, a treaty between the states specifying the rights which are reciprocally guaranteed to their citizens. Either the refusal of recognition or a violation of the treaty gives just ground for war. In Fichte's view, every people living not in the state of nature, but under a government, no matter what this may be,[5] has the right to compel recognition from neighbor states. Any failure to carry out the provisions of the treaty is a violation of the contract by which positive international rights have been created. In either case, the offended state has a valid right to war (*ein gültiges Recht zum Kriege*).[6]

With his customary *a priori* absolutism, moreover, Fichte conceived such a conflict as a *Vernichtungskrieg*. The right to war, like all rights of compulsion, is unlimited. And the offending state has forfeited its international legal status. "All positive rights are

[3] *Cf.* W. Moog, *Fichte über den Krieg*, pp. 32–33, 48. It should be noted that this consummation will involve a transformation of the political and social system. Compulsion will cease; the state itself as a compulsive institution (*Zwangsanstalt*) will be dissolved. The principle of the new order will be love or good-will, proceeding from rational insight into the nature of God, man, and society, as these are revealed by the *Wissenschaftslehre* in the spirit of Christianity. *Staatslehre, S. W.* IV, pp. 592–600. Fichte's discussions of a league of nations proper, as they are considered in this paper, are relative to the present order.

[4] *Grundlage des Naturrechts, S. W.* III, p. 371.

[5] *Jedes Volk, das . . . eine Obrigkeit hat, sie sei beschaffen wie sie wolle. . . .*

[6] *Grundlage des Naturrechts*, pp. 372, 376. *System der Rechtslehre, S. W.* X, pp. 639–640, 642.

grounded in a contract": as between states an actual contract, the definite international agreement. Now, recognition has been denied or the treaty has been broken. In both cases the offender has shown that a legal relation with it is impossible; hence that it has itself no rights. Through its own acts it has become *rechtlos.* Even if it sue for peace and promise amendment, what guaranty can it furnish that the offer is more than a temporary expedient? For Fichte it follows that in the nature of the case it should be destroyed by its opponent and its citizens incorporated by the latter with its own.[7]

But here as elsewhere right and might do not always go together. If the execution of international justice is left to the offended single state, it is possible that victory may rest with the delinquent. There is therefore need for a combination of several states to attack the latter and force it to submission. Such a combination would be a *Völkerbund* and not a *Völkerstaat;* since the right subsists to constrain a state to maintain some legal relations with its neighbors (i.e., the relations of recognition and treaty as above), but not the right to constrain it to join the League. The positive protection of this is only to be gained as a result of voluntary membership.[8] The determination of the delinquency of a state is a matter for the judgment of the *Bund.* The question of recognition can be readily decided: it depends on the fact whether the state accused has entered into the contractual relation with its fellow or the reverse. It is more difficult to judge concerning the fulfilment of the treaty. Two factors are here involved: the reality of the facts alleged and their relation to the exact wording of the treaty. To facilitate the establishment of the facts, all states should practice publicity in their affairs. In order that the terms of the treaty may be clear and definite, it is subject to the oversight of the League: all treaties among the confederated states are concluded under its guaranty, therefore it can tolerate no indefiniteness.[9] Finally, when the *Bund* has rendered judgment, it must be carried out. This is to be accomplished by a war of destruction against the convicted state. But as such cases, it may be hoped, will be few, and later will entirely cease, it was Fichte's opinion that a standing federal army would not be necessary. An *Executionsarmee* made up of contingents from the member states as occasion occurs will meet the need.[10]

[7] *Grundlage des Naturrechts,* pp. 376–377, 379; *System der Rechtslehre,* p. 642.

[8] *Grundlage des Naturrechts,* pp. 379–380. Fichte's position here contrasts with that adopted in his review of Kant's *Zum ewigen Frieden,* in which he looks on the *Völkerbund* as merely an intermediate stage on the way to a *Völkerstaat, S. W.* VIII, p. 433.

[9] *Grundlage des Naturrechts,* pp. 380–381.

[10] *Ibid.,* p. 381.

Fichte thus outlined in brief a comprehensive scheme for an international league to enforce peace. The plan is not complete, for certain questions are left without consideration, but the outlines are clearly drawn. In this respect it is superior to the Kantian discussions of the same theme; and there is also less of variation in the Fichtean analysis than in Kant's celebrated theory.[11] Variation, however, not to say vacillation, does occur. Reference has already been made to the contrast between the demand which is made in the review of Kant's *Perpetual Peace* for the eventual formation of a *Völkerstaat* and the conclusion adopted in the *Grundlage des Naturrechts* that the league is not to constitute a unified state, but a federation of independent states.[12] And there is still greater divergence among the several accounts of the establishment of the *Bund*, as well as of the results which may be expected from it and, in general, from the action of the underlying forces which make for lasting peace. The review of Kant concludes with an optimistic view of the distant future. Toward the close of the *Grundlage des Naturrechts* it is categorically asserted: "As this federation spreads further and gradually embraces the whole earth, *perpetual peace* begins, the only lawful relation among states. . . ." In the *System der Rechtslehre*, however, this hope is dimmed by consideration of the self-seeking propensities of men and nations. The danger of unjust decisions in international causes is rated greater than before, and the possibility is noted of the oppression of the weaker states by the more powerful members of the *Bund*. The forecast now changes to the subjunctive mood, and the way to the establishment of a league, with power to enforce law as between the nations, is even characterized as *eine unauflösliche Aufgabe an die göttliche Weltregierung*. Meanwhile, the principle of force must prevail: *Bis dahin aber ist die Regel: jeder Staat hüte sich, und wehre sich bis auf den letzten Blutstropfen*. . . . Finally, the *Staatslehre* looks forward to the union of the Christian nations and the incorporation with them of the non-Christian peoples after their subjugation.[13]

[11] *Cf.* the writer's "Kant's Philosophy of Peace and War," this JOURNAL, Vol. XXVIII, pp. 197–204.

[12] *Cf.* n. 8 above.

[13] *S. W.* VIII, pp. 427–428, pp. 433–436; *Grundlage des Naturrechts*, p. 382; *System der Rechtslehre*, p. 645, 649; *Staatslehre*, pp. 599–600. F. Medicus (*J. G. Fichte als Anhänger und Kritiker des Völkerbundgedankens*, Zeitschrift für Völkerrecht, XI, 1920, pp. 141–154) maintains that the close of the discussion in the *System der Rechtslehre* amounts to an abandonment of the idea of a League. His argument is striking but overdrawn, and the conclusion not beyond question. In *Ueber Macchiavelli* (*S. W.* XI, pp. 422–428) Fichte had argued still more trenchantly that war is the necessary relation of states, since *zwischen ihnen niemals . . . gewisses und ausgemachtes Recht Statt finden kann* and there can be no common judge; further, that perpetual peace is a dream of

Fichte's conception of the *Völkerbund* is then more settled than, toward the last, his confidence in its realization. In his constructive view he had in mind a league rather than a world-state. And, as already intimated, the nature and functions of the League were clearly summarized, so clearly that they can readily be compared with recent institutions designed for the establishment and the maintenance of peace. Fichte's league was to be compactly organized. It was conceived as an international federation exercising authority in both the judicial and the executive spheres of government. Its powers included coercion and destruction. The contrast is sharp with recent endeavors to assure peace by simple agreement. The *Bund* was not to be a mere pact or covenant; it was proposed as a combination of states destined in its spread to include all nations and endowed, within its field, with supreme power. And it was planned to function in a positive rather than a negative way. It is true that the scope of the *Völkerbund* was limited by Fichte's point of view: the deduction of the law of nations from the contacts of the citizens alone, the restriction of the content of the law to the articles of particular treaties concluded between the several states. In this respect the present League of Nations covers a much wider field. And, as is evident, it organizes its action far less about the central idea of force. Economic pressure, indeed, is contemplated in the Covenant of the existing League, and even constraint by arms. But during the somewhat more than ten years of its existence these weapons have not been used; while the tendency to non-coercive measures—conference, inquiry, advice, arbitration, judicial reference—has become so strong that it amounts to a constitutional change, although the movement for the revision of the relevant articles of the Covenant has not yet been carried through. One further distinction is obvious: according to the Fichtean idea of a league, there was to be no division of judicial authority with a second international body functioning in its own right. The *Bund* was to be the sole judge in international causes, it was not to share the work with a World Court and its decisions were to be given in its own name.

In conclusion, the point may be emphasized which was suggested at the beginning of this paper: Fichte's theory of a *Völkerbund* formed but a part—probably it should be termed a minor part—of his political philosophy. From the time of the French Revolution through the era of Napoleon up to the War of Liberation he con-

the shallow philosophy of the time. But it must be remembered that this was written amid the throes of the Napoleonic invasion and with pointed reference to the weakness of the national leadership. *Cf.* X. Léon, *Fichte et son Temps*, II, 2, pp. 20–34; Medicus, *Fichtes Leben*, 2 Aufl., 1922, pp. 219–220. A. Messer, *Fichte und Machiavelli*, Kantstudien, XXIV, pp. 116–122.

cerned himself with the problems in this field. And his inquiries took a wide range. The foundations of human society; the nature and functions of the state; the philosophy of law; the philosophy of history in its application to the questions of the age; idealistic education for national and cosmopolitan renewal; legitimate and illegitimate war; the development of mankind to the consummation of the *Vernunftreich*—these all were discussed in books, in lectures, in addresses with unwearied energy. Moreover, Fichte was caught in the tumult of national and international conflicts as few thinkers who have pondered the questions of peace and war. The contrast with Kant in this respect has been made the subject of remark.[14] But the comparison may be extended beyond his immediate predecessor to thinkers as a class. Twice he was involved in critical campaigns —one disastrous to the nation, the second destined, after he himself had died, to restore the balance of the first. On both occasions he applied for active service, if not as a combatant, yet as a sort of lay-chaplain with the army. And although permission to serve was denied him, his activity in rousing the people to its task became an integral factor in the nation's history. It is not surprising, therefore, that Fichte's discussion of a *Völkerbund* has been overshadowed by his other work—theoretical and practical—in the general field. It deserves to be recalled, however, in connection with similar projects for a federal organization for the promotion of peace.

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BOOK REVIEWS

De la connaissance de soi. Léon Brunschvicg. Paris: Félix Alcan. 1931. Pp. xi + 196.

This series of lectures will probably add but little to their author's reputation as a subtle analyst and brilliant expositor, but they will nevertheless charm most readers by their rhetorical grace. The knowledge of self that they profess to discuss turns out to be a knowledge of the general traits of men, most of which we know anyway.

M. Brunschvicg's point of departure is that the human soul is a centre from which man's various activities radiate, rather than the product of these various activities. To know the human soul, then, is to follow the genesis of its various activities and their development. In doing this one derives a history like Hegel's *Phenomenology* and indeed this study in method, if not in results, is a modern version of that philosophical masterpiece.

[14] E.g., by Moog, *op. cit.*, p. 7.

Under its wealth of erudition and its elaborate argument lies a very simple formula. The dualism of matter and spirit orients the student of the human soul in two contradictory but, as one might expect, complementary directions. One can look outward towards matter or inward towards spirit, and as man becomes "realistic" or "egocentric," he becomes *homo faber* or *homo religiosus*. Since *"l'humanité, comme tout ce qui existe, est un ensemble de fonctions"* (p. 23f), man as a maker and man as a worshiper must each contribute his part to the nature of man as man. Consequently, since that which is necessary is good—which we need not dispute—it will be part of the technique of the student of humanity to write an apology as well as a description of man's various functions. With this in mind, M. Brunschvicg shrewdly points out that the contempt for *homo faber* by the Platonists to the greater glory of *homo sapiens* was entirely unwarranted. He attributes to it the sterility of Greek mathematics and natural science. It thus turns out in good Hegelian fashion that a human capacity which seems to be contradictory—or better the enemy—of another is really its friend and helpmate. But, again in good Hegelian fashion, this human capacity may be developed exclusively: one may live the life of *homo faber* to the exclusion of any other life. In this case one accepts scientific method for logic, materialistic economics for sociology, pleasure-pain psychology for ethics.

It is but the work of a few pages to point out that the material world—which M. Brunschvicg appears to believe Bacon, the Encyclopedists, Bentham, and Comte meant by "nature"—is in itself largely the work of man. These pages recall how engineers have changed the face of the earth, putting rivers in deserts, and dry land in swamps and seas; how inventions have linked islands to the mainland and changed night into day, have made cold climates warm and warm climates cold. This would seem to show that the formula *natura non parendo nisi vincitur* is false and that man's self-consciousness has arisen not from thinking of himself as part and parcel of the natural order but as superior to it. *"C'est un fait d'expérience générale, remontant sans doute à des milliers et à des milliers de siècles, que l'homme n'a pris entièrement conscience de lui-même tant qu'il ne s'est pas considéré sur un plan supérieur à la nature, tant qu'il n'a pas posé le problème de Dieu et du salut en Dieu"* (p. 40). Thus *homo religiosus* rises up to confront *homo faber*.

It will surprise no one to learn that *homo religiosus* is the very opposite of *homo faber*. Like the forces of repulsion and attraction in the physical world, the forces of fear and hope stabilize the phenomena of the religious world. But what are the phenomena to

be stabilized? They are the phenomena of the inner life, phenomena which are independent of the natural order and which the believer maintains continue when the natural order has been left behind. This life can not be studied by empirical psychology, yet it finds expression in symbol and myth. It is constantly belabored by Reason, but never crushed.

It owes its survival to the fact that the opposition is more verbal than real. The verbal formulas of opposition serve rhetorical rather than scientific ends. Between *homo faber* and *homo religiosus* stands a third man, *homo magicus*. *"Vue du côté de la religion, la magie est refoulée vers la technique; vu du côté de la technique, elle est renvoyée à la religion"* (p. 61). Thus *homo magicus* is somehow more "fundamental" than either artisan or worshiper. It is in him that one finds a fusion of realism and egocentricity. But such an ego can not be the self which we are seeking. For it, too, is open to the criticisms of Reason. We may, to be sure, refuse to give way to them. We may insist that the intuited ego is above Reason. But that such insistence is called for proves more eloquently than anything else the distinction on the critical level of subjectivity and objectivity. Is there no way of filling the gap between Jean-Jacques Rousseau and Saint Thomas?

The existence of society, art, and science intensifies this problem. How can they exist if man is the solitary dreamer or the smith, or even the magician, trying to sway the course of events? These phenomena could not be at all if there were not numerous individuals, and if there were not communication between them. Man therefore must now be envisaged as *homo loquens*. But *homo loquens* himself has been interpreted in two ways: language to the Cartesian is *"le produit de l'activité spirituelle qui a l'intuition claire et distincte de soi"*; in the *sociologisme* of Bonald, it is *"un 'en soi,' antérieure à la parole, et d'où dériverait la raison elle-même"* (p. 82). After tracing what are sometimes called the "implications" of these two interpretations, M. Brunschvicg points out that in so far as man is revealed in language, he is a political animal, in the Greek sense of "political." But *homo politicus* seems the antithesis of the self, in so far as the self is conceived to be the inner man. Yet are there any of our characteristics which have no social roots? It is a simple matter to reconstruct an individual's inner nature from his social behavior. *"Les gestes les plus familiers de la vie quotidienne, la façon de remettre un ticket à un contrôleur, ne révèlent-ils pas l'être social d'un homme, l'habitude du commandement ou celle de l'obéissance?"* (p. 99). Yet man refuses to belief himself limited to his political essence. The conscientious objectors, of whom the Sophoclean Antigone is the saint, have always been among us, as

their critics have been. And the polis which is supposed to be that which gives us our being has been defined not only as the City of Cecrops but as the City of Zeus.[1]

We now pass to a new stage of this phenomenology of spirit. Both language and the City are institutions and man must therefore be thought of as a builder of institutions. The institutions he builds resist the wear and tear of time and therefore must find their sustenance, not in the flesh and blood of man the animal, but in the eleatic heaven of truth and beauty (the reasoning is not the reviewer's). Science and art, which are the institutions of *homo artifex* which concern us, are purely gratuitous inventions in so far as biological necessity is concerned. Their detachment from utilitarian ends marks them as of a special realm and both the artist and the scientist have broken with nature.[2] Both artist and scientist impose their formulas upon their subject-matter and illustrate the classical dictum, *homo additus naturae* (p. 147). And yet this too must not be interpreted literally. For we are told contemporary physics shows us that both old-fashioned realism and old-fashioned idealism are being outstripped.

> Il n'y a rien qui soit plus paradoxal pour le sens commun que ce trait caractéristique de la physique mathématique contemporaine: la science de la nature devient de plus en plus objective à mesure que le savant fait explicitement leur place aux conditions proprement humaines de la mesure et de la coordination expérimentale. L'alternative de réalisme et de l'idéalisme, pris tous deux comme des absolus, est dépassée. Le savant connaît d'autant plus exactement son objet qu'il a cessé de se négliger lui-même dans l'oeuvre de connaissance, à la manière des enfants qui oublient de se compter. Il prend conscience des choses à mesure qu'il prend conscience de soi. Le COGITO se révèle à lui-même par l'action de la COGITATIO, contrainte à se déployer et à se renouveler sans cesse pour entrer en connexion plus précise et plus sûre avec des réactions de l'expérience. L'esprit et la nature se démontrent l'une à l'autre leur réalité par leurs résistances réciproques, de telle sorte que, dans l'harmonie de la construction einsteinienne, HUMANISME et OBJECTIVITÉ apparaissent, non seulement réconciliés mais solidaires [p. 149f].

Man, then, finds truth when he takes himself into account. Where is he to find goodness? In the strict obedience to a rule imposed

[1] This type of punning, which of course is common enough in philosophical literature, is one of the most bewildering elements of M. Brunschvicg's thinking.

[2] This is no place to go into the philosophy of art, yet one can not resist pointing out that in discussing the "meaning" of works of art, one must distinguish between the point of view of the artist and that of the spectator. A picture may have no economic or biological importance for its owner, but may be a means of livelihood for its maker. Art was in general a trade up to the romantic period, and no one can say that from the spectators' point of view it was any the worse than art after the romantic period. But M. Brunschvicg here is simply following the tradition of esthetics and should not be too harshly criticized for it.

dogmatically from without or in realizing the conditions of his own nature? Must each of us follow the commandments of our elders or our social leaders, or must we be "true to ourselves"? How can we answer until we know what we are? Are our selves determined by the world in which we live, or do they order and regulate that world? This opposition, like so many others in M. Brunschvicg's book, must be "reconciled." It is reconciled, as the opposition of science and art was reconciled, by insisting that the apparent antithesis is not real and that the spiritual being is both subject and sovereign. But such a being can not exist in time and space where antitheses are real. It must therefore exist in another realm, and that realm is found in eternity, the land of Plato's ideas and of Spinoza's God. "We," it would seem, are inhabitants of a land behind this land, a land explored by Platonists, Neo-platonists, and post-Kantians, and yet as unfamiliar to us as the farthest star. That man should be estranged from himself is no paradox; psychiatrists have long made clear to us its rationality. And yet that self-knowledge should be a denial of everything that surrounds us, that all our interests and capacities, all our struggles and satisfactions, are not the possessions of our real self seems strangely puzzling. Plotinus solved the problem of why the Eternal Self should be in time by his doctrine of the voluntary descent of the Soul to fulfill the natural law of production. The Christians, I believe, solve it by the story of the Fall. M. Brunschvicg leaves it, as far as this book is concerned, unsolved. And when the last page is reached and man is seen to be essentially "spiritual," man as smith, as priest, as magician, man in all his "lower" stages, becomes the great puzzle. What are these avatars and why?

A book that is written as well as this one commands respect. One feels that it must be important in spite of appearances. But how resist the temptation of asking precisely what one has learned from such a treatise? One has learned that man makes things and thus submits himself to the external world; that man worships gods and thus submits to his hopes and fears; that man mutters charms and stirs magic brows and thus both submits the world to him and himself to the world; that men talk to one another and live in society, and so on. Some of these observations surely have occurred to all of us and all of them to some of us and yet the necessity of putting them into a book has never been urgent.

There is, moreover, a very strange feature of the technique of this reasoning which a reviewer feels compelled to point out. That is that though M. Brunschvicg credits Man with being the centre of craftsmanship and religion and magic and the rest, observation shows us that only some men are each of these things. The blacksmith

is not the priest, nor is the priest necessarily the magician. Even though the one could not exist without the other—as in Hegel the master can not exist without the slave and *vice versa*—that does not mean that one is the other. So that at best all that M. Brunschvicg has succeeded in doing is arranging human activities in a kind of hierarchy. He has by no means shown that the essence of the highest stage is that of all the stages.

On the whole the fairest criticism of M. Brunschvicg's book is that it is another gallant attempt to justify human aspirations. Most men have enjoyed feeling that they have a special place in the cosmos, that they are added to nature, and to tell them that they are beyond time and space is a way of doing it. To be sure, we all of us have to live as if we were four dimensional biographies in space-time, and though we know we are "eternal" and "spiritual," we are curiously unable to cash in this security when we have to cover long distances or are in need of an operation. But somehow or other the conflict between actual experience and dialectical construction seldom worries us and I dare say most of the readers of M. Brunschvicg will feel as if they knew themselves when they finish his book, whatever his critics may say.

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Ideas: General Introduction to Pure Phenomenology. EDMUND HUSSERL. Translated by W. R. Boyce Gibson. (Library of Philosophy.) New York: Macmillan Co. 1931. Pp. 466.

At the end of an article on Husserl in *Mind*, July, 1925, Professor Boyce Gibson of the University of Melbourne said: "Let us hope that some one will have the requisite courage, insight, leisure, and familiarity with the niceties of philosophical speech to translate this great thinker into readable English. It would be something really worth doing."

Six years later it was Professor Gibson himself who published the first of Husserl's works in English (that is, excepting the *Encyclopaedia Britannica* article on phenomenology translated by Professor Salmon of Belfast). If he had not undertaken this task, it is possible that English readers would have had to wait another six years for a translator who could master what Santayana has called Husserl's "thankless text." Husserl's style is such that it calls for a translator of experience, and this Professor Gibson fortunately is, for he has the translation of a number of Eucken's works to his credit.

It may be, however, that his experience has been responsible for some of the less welcome features of the English edition. In the

first place, the title of the German work is *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie.* This has been translated by the one word *Ideas,* the phenomenological aspect being covered in a sub-title which is really the title of the first book only. Despite the fact that the translation has been authorized by Husserl, it seems to me that the liberty taken in this instance is unfortunate, for in another connection Husserl warns against the use of the word "ideas" (p. 46) which philosophically he restricts to the Kantian sense. Further, his "universal idealism" is not idealism in the ordinary sense of the term, for he holds that every form of current philosophical idealism, as of realism, is in principle absurd (cf. pp. 19–22). Possibly then it was Professor Gibson's own idealism that led him to regard Husserl as ultimately an idealist, or his perception of "a trend that is towards idealism" (p. 19; cf. note to p. 441) may have led him to use the dangerous, though in English hard-worked, word "ideas." Probably, however, in realizing the difference between the German and the English outlook, he felt that *Ideas towards a pure phenomenology and a phenomenological philosophy* was a title unsuited to English use. A less experienced translator would not have risked so radical a change in meaning, yet I venture to think it was a mistake to confuse in however slight a way the approach Husserl was trying to make, an approach that issues in a theory of philosophy that is of fundamental importance.

Also it may be that Professor Gibson's ability as a translator has made him unaware of difficulties which present themselves constantly to the student. There can be nothing but admiration for the way in which he has constantly mastered the complicated sentence constructions which make Husserl's language "difficult, even for Germans" (p. 30). Time and again he breaks the back of these constructions and yet with this mastery of difficult passages has not come a simplification of the text generally. Even the index betrays this lack of simplification, for whereas the German edition is indexed with page references, the English edition has paragraph references and no paragraph numbering at the top of the page.

One could have wished that the translator's preface had been expanded to form an introduction for English readers. A glossary too would have been a welcome feature, while a brief biographical sketch would have supplied a deficiency, for there are no biographical details of Husserl available in English and very few in German.

Apart from these general considerations there are but minor faults to be found with the translation. There are slips, such as "psychological" for "logical" (p. 159) and on the same page the omission of a negative from "that we have therefore fallen into an

inevitable *regressus in infinitum.*" Occasionally there are German constructions carried over, as in placing the verb at the end of an auxiliary clause (p. 191: "The essential relation . . .") and in inverting the verb in a conditional clause (p. 228: "*Are* the like . . ."). The word "pregnant" has been used throughout for "precise" or "exact." There are a few bad literals, too, such as "internationality" for "intentionality" (p. 443) and "model essence" for "modal essence" (p. 117). Such slips are relatively few and unimportant considering the size and character of the work and they in no wise detract from what is decidedly a fine piece of scholarly translation.

What must be said about terminology applies equally well to the German as to the English edition. Husserl is an industrious coiner of philosophical jargon. Not content with the resources of his own language, he has repeatedly gone back to the Greek for words to which he can apply his own meaning, as in the case of "epoche" which comes from the Sceptics and is well adapted to supply a positive aspect to the Cartesian method of philosophical doubt. Other linguistic difficulties which the student of Husserl must master[1] may be indicated by such examples as: doxa, protodoxa, irreal, noema (which forms its plural as "neomata"), counter-noema, noesis, polythetic; doxic syntactics, material phases (this is a refined way of saying "sensory data"), doxothetic experience. To these must be added specially adapted English words, such as "dator" and "primordial." Occasionally, very occasionally, a gleam of humor will tend to lighten the heavy going such a vocabulary entails. So it is, for instance, when Husserl admits: "That's a shocking way of putting it (*Das ist eine anstössige Rede*), but I could not see how to avoid it" (p. 198).

Not only must the English reader master such terms, but he must also be acquainted with act and content psychology, especially the former. Husserl himself says "there is no 'royal road' in phenomenology." "It is *all* of it hard" (p. 280). Unless the psychology of Brentano and Wundt is known, in some degree at least, it will be harder still.

For those who wish to study phenomenology and do not have this background it can be said that chapters 15–18 of Boring's *History of Experimental Psychology* cover much of the necessary introductory ground. Titchener's *Systematic Psychology,* though more difficult, is an even better introduction.

Psychologists will find most important material in Husserl's analysis of pure consciousness, his method of reflection, his view of the nature of intentionality, his theory of meaning and other topics of

[1] The diligent reader will find help in Eisler's *Wörterbuch der philosophischen Begriffe,* 4. ed., 1927–1929.

fundamental interest. Even if Husserl is critical of "psychologizers" (a term requiring explanation for English readers, introduced at p. 273; cf. *Logische Untersuchungen,* V. 1, p. 52), it must be remembered that *Ideas* is part of the philosophical atmosphere of Gestalt psychology. It is most useful to read it along with Köhler's *Gestalt Psychology.* Husserl is not primarily concerned with psychology; nevertheless I am inclined to rank his *Ideas* along with Külpe's *Die Realisierung* and Titchener's *Systematic Psychology* as the outstanding contributions of the twentieth century in the field of theoretical psychology.

However, not to overemphasize the psychological side, it must be stated that there are other fruitful lines that can be followed up in studying *Ideas.* One is the historical way. Geyser has called phenomenology "neo-scholasticism"; Husserl himself says it might almost be called "neo-Cartesianism." There is also an interesting bit of history of German philosophy to be studied in the successive oppositions of Bolzano to Kant, Trendelenburg to Hegel, and Brentano to Wundt. This repeated pressure of Aristotelian tendencies against the dominant German idealism leads to Husserl's "universal idealism" and his claim to have established a new science, one that is fundamental to the whole of philosophy.

When it comes to working out the status of this "universal idealism" and to developing new positions, *Ideas* can be taken only as raising problems, not as answering them. Even in the matter of psychologism I do not believe the last word has been said. It is much to Husserl's credit, however, that he has drawn attention to the important problems connected with such a theory. As regards his "universal idealism," most philosophers will want to reserve their judgment until they can read his views on the relation of phenomenology to metaphysics.

These views are promised for a later volume, for *Ideas* is only the first of three books. It is called a general, but is really a methodological, introduction to phenomenology. This is part of the difficulty in reading the first book, that it is devoted to preliminary theory almost exclusively. Readers will welcome the illustration given at pp. 282–283, of how actual phenomenology may be carried out.

It is to be hoped, in terms similar to those quoted from Professor Gibson's article in *Mind,* that when the second and third volumes are published in Germany he will have the courage and leisure still to translate them for the benefit of English readers. It is also to be hoped that this most important work will not share the fate of Wundt's *Principles of Physiological Psychology,* which, with three volumes in the German edition, has only the first translated into English.

Ideas is a most welcome addition to the *Library of Philosophy*. It is a credit to the translator and others concerned in its production. It is to be hoped that it will stimulate interest in the study of phenomenology which in English-speaking countries has lagged overlong behind interest in many related branches of contemporary German thought which can scarcely be understood without it.

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JOURNALS AND NEW BOOKS

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NOTES AND NEWS

Professor Alfred North Whitehead of Harvard University, gave the third annual Davies Lecture in Philosophy at the Institute of Arts and Sciences of Columbia University on March 7, on the subject: "Reactions between Science and Philosophy."

The annual Schermerhorn Lectures in Religion at Columbia University are being given this year by Irwin Edman, Associate Professor of Philosophy at Columbia University, on the subject "The Mind of St. Paul." There are five lectures under the following titles: Paul and His Interpreters; Paul and Judaism; Paul and the Greek Mysteries; Jesus, Paul, and the Christian Mystery; The Mystical Christianity of Paul.

Professor Edman secured material for his study while in Europe and Asia last year, and the lectures will be published as the third volume of Schermerhorn Lectures in the Series: Studies in Religion and Culture.